Louisiana Environmental Protection and Sustainability Postsecondary Survey Results

June 2020

SREB's online surveys were sent to Louisiana public postsecondary heads of environmental programs in May 2020. Professors had two weeks to complete the survey. The purpose of the survey was to get ideas about an ideal environmental protection and sustainability pathway program for students, environmental credentials college students earned, work-based environmental activities for students and courses high schools could enroll in to help complete an environmental pathway, among other topics. In total, 21 professors started the survey and 12 fully completed it.

Survey Questions with Summarized Responses

What high school courses will give students an advantage in an environmental pathway? Math courses like Calculus were mentioned as well as Biology, Chemistry, Physics and Statistics. An overall Environmental course was also recommended.

What types of courses will accelerate the completion of an EPS pathway? Answers were varied and included Agriculture, Biology, Chemistry, Ecology, Electrical Principles, Engineering Design, a variety of environmental courses, Geology, Hydrology, Marine Biology, Physics, Political Science, Probability and Statistics, Sustainability, Waste Management and Writing.

Which of the following Advanced Placement and Dual Enrollment courses better prepare students? Overall, professors believed that AP courses better prepared students than Dual Enrollment courses. Specifically, AP Biology, Calculus I, Calculus II, Human Geology and Statistics courses were considered superior to Dual Enrollment. AP and Dual Enrollment Chemistry, Computer Science, Environmental Science and Physics were viewed as equally preparing students. A Dual Enrollment course, Basics of Materials Science, was considered superior.

What types of courses should be included in an ideal EPS pathway? Once again, responses varied. They included: knowledge of the economic and political causes of environmental destruction; Earth as a connected system; microbial ecology, environmental design, ecology and sustainability; computer skills; Basics of Materials Science; Global Health; writing about experiential and observable data; and conducting impartial research.

What field experiences would benefit students who wish to enter the environmental field? The answers include introduction to field work, Louisiana Universities Marine Consortium student activities, resource conservation, internships and summer camps, service learning, technical student competitions, observation and writing experiences, and hands-on environmental training.

What suggestions do you have for the EPS pathway design team? Suggestions included increasing earth science in the high school curriculum, looking at all aspects of environmental science when designing the pathway, offering internships and summer camps, and encouraging students to develop an ongoing individual project. Remarked one professor: "The data are clear. Students perform best when they have a strong foundation in high school Biology, Chemistry, Math and Writing. AP courses are helpful; dual enrollment courses are not. Dual enrollment courses are often not college level and don't cover the expected material."

What credentials do students earn as completers of an EPS undergraduate program? The highest percentages of credentials completion included Certified Hazardous Materials Manager, Certified Industrial Hygiene Professional, Forestry, Professional Wetland Scientist and Registered Environmental Manager at 16% and Certified Environmental Professional and a Sustainability Certificate at 25%.

What apprenticeships or internships are found in your area? Apprenticeship or internship opportunities included U.S. Department of Agriculture, National Park Service, environmental, manufacturing, oil and gas companies, private engineering firms and grant-funded research labs. These organizations also employ environmental graduates after they receive their degrees.